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| 10/540,636 | 11/14/2005 | Liwen Zhang | NFE-101 | 5387 |

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EXAMINER

CHOI, PETER Y

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1771

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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|------------------------------|--------------------------------------|-------------------------------------|--|
| Office Action Summary | Application No. 10/540,636 | Applicant(s) ZHANG, LIWEN | |
| | Examiner Peter Y. Choi | Art Unit 1771 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 8-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>06/23/05</u> . | 6) <input type="checkbox"/> Other: _____ |

NON-FINAL ACTION

Election/Restrictions

1. Applicant's election of Group I, claims 1-7, in the reply filed on May 29, 2007, is acknowledged. Claims 8-10 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election **without traverse** (MPEP § 818.03(a)).

Response to Amendment

2. Applicant's amendment of March 21, 2006, has been entered. It appears that the Status Identifiers with respect to claims 4-6 should be labeled "(Currently amended)." Please amend in response to this Non-Final Rejection.

Specification

3. The disclosure is objected to because of the following informalities: the specification contains numerous grammatical errors. For example, the third paragraph of page 1, sentence 2 recites, "However, because of their natural physical structure, such as downs have cloud shape and barbs are grown on quills in rows, that lead down and feather products to be very unstable, fuzzy, and bulk." The structure Applicant intended to describe is difficult to discern. Due to these errors, it is difficult to determine the scope of the claims when read in light of the disclosure. Please submit a revised specification correcting the grammatical errors.

Claim Objections

4. Claims 2-4 and 6 are objected to because of the following informalities:

Regarding claim 2, there should be a space separating "claim1".

Regarding claim 3, there should be a space separating "claim1". Additionally, it appears that "wherein" following "claim1" should be removed.

Regarding claim 4, "is" following "said textile fibers" should be "are".

Regarding claim 6, the "is" following "said chemical textile fibers with low melting point" should be "are". Additionally, it appears there should be an "s" following "alkali polyester fiber" and an "a" between "or" and "mixture."

Appropriate corrections are required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1-7, claims 1, 3 and 5 recite "the barbs, tiny barbs, hooks of said feathers." There is insufficient antecedent basis for the limitation "the barbs, tiny barbs, hooks" in the claims. If Applicant intended to describe a specific aspect of the structure of said feathers, it is additionally unclear what structure is intended as the disclosure including the drawings does not reasonably describe "barbs, tiny barbs, hooks."

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Regarding claim 2, the claim recites "said adhesive." Claim 2 is dependent from claim 1, wherein claim 1 recites "said feathers are bonded together by adhesives." Claim 1 appears to recite that the feathers are bonded together by multiple adhesives, whereas claim 2 only recites a singular adhesive. Therefore, the composition of the structure claimed is unclear.

Regarding claim 4, the claim recites "nature textile fibers or ...chemical textile fibers." It is unclear what Applicants intended by "nature textile fibers ...or chemical textile fibers."

Regarding claim 6, the claim recites that the "chemical textile fibers with low melting point are alkali polyester fibers or a mixture of Polypropylene fiber and polyethylene fiber or polypropylene fiber." It is unclear whether Applicant is claiming that the mixture may be polypropylene fiber and polyethylene fiber or polypropylene and polypropylene, or that the mixture may be polypropylene and polyethylene or polypropylene alone.

Claim Rejections - 35 USC § 102/103

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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8. Claims 1-7 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over USPN 3,278,954 to Barhite.

Regarding claims 1-7, Barhite teaches a heat-retaining feather wadding comprising feather having a web piece structure formed by intercrossing and interlinking said fibers, the crossing and linking points of the barbs, tiny barbs, hooks of said feathers are bonded together by adhesives (see entire document including column 1 line 8 to column 2 line 2, column 2 lines 57-70, column 3 lines 12-59, column 4 lines 1-23).

Regarding claim 2, the adhesive is natural resin or polyurethane or polypropylene acid ester or poly-acetate ethyl ester or poly-chlorin ethene or propylene acid emulsion (column 3 lines 51-59).

Regarding claims 3 and 4, the feather wadding further comprises textile fibers, said feathers and textile fibers having a web piece structure formed by intercrossing and interlinking said feathers with said textile fibers, the barbs, tiny barbs, hooks of said feathers are entangled by said textile fibers (column 1 line 8 to column 2 line 2, column 2 lines 57-70, column 3 lines 12-59, column 4 lines 1-23).

Regarding claim 4, the textile fibers are nature textile fibers or synthetic textile fibers or chemical textile fibers (column 3 lines 12-20).

Regarding claims 5-7, the feather wadding further comprises chemical textile fibers with low melting point, said feathers and chemical textile fibers with low melting point having a web piece structure formed by intercrossing and interlinking said feathers with said chemical textile fibers with low melting point, the barbs, tiny barbs, hooks of said feathers are adhered with said

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chemical textile fibers with low melting point (column 1 line 8 to column 2 line 2, column 2 lines 57-70, column 3 lines 12-59, column 4 lines 1-23).

Regarding claim 6, the chemical textile fibers with low melting point is alkali polyester fiber or mixture of Polypropylene fiber and polyethylene fiber or polypropylene fiber (column 3 lines 12-20).

Regarding claim 7, Barhite does not appear to disclose that the melting point of said chemical textile fibers with low melting point is from 110°C to 140°C. However, the claimed property is deemed to be inherent to the structure in the prior art since the Barhite reference teaches chemical textile fibers with a similar structural and chemical composition as the claimed invention (column 3 lines 12-20, column 4 lines 1-23). Properties are the same when the structure and composition are the same. The burden is on the Applicant to prove otherwise.

In the event it is shown that Barhite does not disclose the claimed invention with sufficient specificity, the invention is obvious because Barhite discloses the claimed constituents and discloses that they may be used in combination.

9. Claims 1-7 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over US Pub. No. 2002/0007900 to Keller.

Regarding claims 1-7, Keller teaches a heat-retaining feather wadding comprising feather having a web piece structure formed by intercrossing and interlinking said fibers, the crossing and linking points of the barbs, tiny barbs, hooks of said feathers are bonded together by adhesives (see entire document including paragraphs 0002, 0006-0011, 0013-0016).

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Regarding claim 2, the adhesive is natural resin or polyurethane or polypropylene acid ester or poly-acetate ethyl ester or poly-chlorin ethene or propylene acid emulsion (paragraph 0015).

Regarding claims 3 and 4, the feather wadding further comprises textile fibers, said feathers and textile fibers having a web piece structure formed by intercrossing and interlinking said feathers with said textile fibers, the barbs, tiny barbs, hooks of said feathers are entangled by said textile fibers (paragraphs 0009, 0015).

Regarding claim 4, the textile fibers are nature textile fibers or synthetic textile fibers or chemical textile fibers (paragraphs 0007, 0009, 0015).

Regarding claims 5-7, the feather wadding further comprises chemical textile fibers with low melting point, said feathers and chemical textile fibers with low melting point having a web piece structure formed by intercrossing and interlinking said feathers with said chemical textile fibers with low melting point, the barbs, tiny barbs, hooks of said feathers are adhered with said chemical textile fibers with low melting point (paragraphs 0002, 0006-0011, 0013-0016).

Regarding claim 6, the chemical textile fibers with low melting point is alkali polyester fiber or mixture of Polypropylene fiber and polyethylene fiber or polypropylene fiber (paragraphs 0009, 0015).

Regarding claim 7, Keller does not appear to disclose that the melting point of said chemical textile fibers with low melting point is from 110°C to 140°C. However, the claimed property is deemed to be inherent to the structure in the prior art since the Keller reference teaches chemical textile fibers with a similar structural and chemical composition as the claimed

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invention (paragraph 0009, 0015). Properties are the same when the structure and composition are the same. The burden is on the Applicant to prove otherwise.

In the event it is shown that Keller does not disclose the claimed invention with sufficient specificity, the invention is obvious because Keller discloses the claimed constituents and discloses that they may be used in combination.

Claim Rejections - 35 USC § 103

10. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,232,249 to Kawada in view of Barhite.

Regarding claims 1-7, Kawada teaches a heat-retaining feather wadding comprising feather having a web piece structure formed by intercrossing and interlinking said fibers, the crossing and linking points of the barbs, tiny barbs, hooks of said feathers are bonded together (see entire document including column 1 lines 8-25, column 1 lines 49-64, column 2 lines 11-24, column 3 lines 7-20).

Regarding claims 1-7, Kawada does not appear to teach that the feathers are bonded together by adhesives. However, Barhite teaches that a common problem of feather and down insulation products is migration of the feathers and down, and that a method used to contain feathers and fibers comprises bonding feathers and fibers with an adhesive or low-melting thermoplastic material (Barhite, column 1 lines 8-65, column 2 lines 57-70, column 3 lines 51-59, column 4 lines 1-19). It would have been obvious to one of ordinary skill in the thermal insulation art to entangle the barbs of the down feathers and staple fibers of Kawada, and further apply adhesives at the cross-over points, as taught by Barhite, motivated by the desire to create

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an efficient thermal insulation material which provides adequate heat insulation properties and ventilation throughout the material while restricting the migration of the feathers and fibers.

Regarding claim 2, the adhesive is natural resin or polyurethane or polypropylene acid ester or poly-acetate ethyl ester or poly-chlorin ethene or propylene acid emulsion (Barhite, column 3 lines 51-59).

Regarding claims 3 and 4, the feather wadding further comprises textile fibers, said feathers and textile fibers having a web piece structure formed by intercrossing and interlinking said feathers with said textile fibers, the barbs, tiny barbs, hooks of said feathers are entangled by said textile fibers (Kawada, column 2 lines 11-24, column 3 lines 13-20).

Regarding claim 4, the textile fibers are nature textile fibers or synthetic textile fibers or chemical textile fibers (Kawada, column 2 lines 11-24, column 3 lines 13-20).

Regarding claims 5-7, the feather wadding further comprises chemical textile fibers with low melting point, said feathers and chemical textile fibers with low melting point having a web piece structure formed by intercrossing and interlinking said feathers with said chemical textile fibers with low melting point, the barbs, tiny barbs, hooks of said feathers are adhered with said chemical textile fibers with low melting point (Kawada, column 2 lines 11-24, column 3 lines 13-20).

Regarding claim 6, the chemical textile fibers with low melting point is alkali polyester fiber or mixture of Polypropylene fiber and polyethylene fiber or polypropylene fiber (Kawada, column 3 lines 13-20).

Regarding claim 7, Kawada does not appear to disclose that the melting point of said chemical textile fibers with low melting point is from 110°C to 140°C. However, the claimed

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property is deemed to be inherent to the structure in the prior art since the Kawada reference teaches chemical textile fibers with a similar structural and chemical composition as the claimed invention (Kawada, column 3 lines 13-20). Properties are the same when the structure and composition are the same. The burden is on the Applicant to prove otherwise.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Y. Choi whose telephone number is (571) 272-6730. The examiner can normally be reached on Monday - Friday, 08:00 - 15:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Peter Y. Choi
June 11, 2007



ANDREW PIZIALI
PRIMARY EXAMINER